

This listing of claims will replace all prior versions,
and listings, of claims in the application:

LISTING OF CLAIMS:

1-14. (cancelled)

15. (currently amended) A sorbent suitable for use as a stationary phase in elution chromatography, the core of said sorbent consisting of an organic resin selected from the group consisting of polymers made from mono- or oligo- vinyl monomers and carbohydrates other than cellulose and wherein a plurality of non-aromatic zwitterionic groups are covalently bonded on the surface of said sorbent.

16. (previously presented) A sorbent according to claim 15, characterized in that the sorbent further comprises a porous carrier.

17. (previously presented) A sorbent according to claim 15, characterized in that the zwitterionic non-aromatic groups have been bound to the carrier by polymerizing monomers comprising non-aromatic zwitterionic groups on the surface of the carrier.

18. (previously presented) A sorbent according to claim 17, characterized in that the zwitterionic non-aromatic groups have been incorporated throughout the structure of the carrier sorbent by polymerizing monomers comprising non-aromatic

zwitterionic groups together with suitable divinyl crosslinking monomers.

19. (previously presented) A sorbent according to claim 15, characterized in that the zwitterionic non-aromatic groups have been bound to the carrier by activation of the carrier with an alkylating functional group, which is subsequently reacted with an ω -dialkylamino-alkylsulfonic acid to form non-aromatic zwitterionic groups on the carrier.

20. (previously presented) A sorbent carrier according to claim 15, characterized in that the surface of the organic resin has been activated by incorporation of a reactive functional group that is capable of alkylating the amino group of an aminoalkylsulfonic acid in a reaction producing covalently bonded zwitterionic non-aromatic groups on the sorbent carrier.

21. (previously presented) A sorbent carrier according to claim 15, characterized in that the surface of the organic resin has been activated by incorporation of a reactive functional group that is capable of forming an ester or ether bond with a hydroxyl group residing on the alkyl chain interconnecting the quarternary ammonium group and the sulfonate group in a sulfobetaine zwitterion, thus covalently binding a non-aromatic zwitterionic group to the surface of the activated sorbent carrier in a lateral fashion.

22. (previously presented) A sorbent carrier according to claim 15, characterized in that the carrier is a polymeric monolith.

23. (previously presented) A sorbent carrier according to claim 15, characterized in that the zwitterionic groups are ω -sulfoalkyl-trialkylammonio (sulfobetaine) groups.

24-27. (cancelled)

28. (previously presented) A sorbent according to claim 17, wherein the zwitterionic groups have been bound to the carrier by graft polymerizing monomers comprising non-aromatic zwitterionic groups on the surface of the carrier.

29. (previously presented) The sorbent carrier of claim 20, wherein the reactive functional group is one of an epoxy and a halogenoalkyl.

30. (previously presented) The sorbent carrier of claim 21, wherein the reactive functional group is one of a hydroxyalkyl, a carboxylic acid, a carboxylic acid chloride, a carboxylic acid bromide, a carboxylic anhydride, a carboxylic ester, an alkyl oxonium, an epoxy, a chloroalkyl, a bromoalkyl, a diazoalkyl, and an activated amide.

31. (currently amended) A sorbent, comprising:

a core consisting of an organic resin selected from the group consisting of polymers made from mono- or oligo- vinyl monomers and carbohydrates other than cellulose;

a sorbent surface; and

a plurality of non-aromatic zwitterionic groups covalently bonded to said surface;

and wherein said sorbent has selective sorption properties so that said sorbent can be used as a stationary phase in chromatographic separations.

32. (previously presented) The sorbent according to claim 31, wherein said zwitterionic non-aromatic groups have been bound to the surface of the sorbent by graft polymerization of monomers comprising non-aromatic zwitterionic groups.

33. (previously presented) The sorbent according to claim 31, wherein said zwitterionic non-aromatic groups have been bound to the sorbent by activation with an alkylating functional group and then reacted with a ω -dialkylaminoalkylsulfonic acid to form non-aromatic zwitterionic groups on the sorbent.

34. (previously presented) The sorbent according to claim 31, wherein said sorbent is porous.

35. (previously presented) The sorbent according to claim 31, wherein said sorbent is porous and has pore diameters ranging from 0.01 to 10 μ m.

36. (currently amended) A sorbent suitable for use as a stationary phase in elution chromatography, comprising:

a core consisting of an organic resin selected from the group consisting of polymers made from mono- or oligo- vinyl monomers and carbohydrates other than cellulose;

a sorbent surface; and

a plurality of non-aromatic zwitterionic groups covalently bonded to the surface.

37. (previously presented) The sorbent according to claim 36, wherein said sorbent is a porous monolithic sorbent carrier.

38. (previously presented) The sorbent according to claim 36, wherein said zwitterionic non-aromatic groups have been bound to the surface of the sorbent by graft polymerization of monomers comprising non-aromatic zwitterionic groups.